IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re Patent No.:	7234030
Issued:	June 19, 2007
First Named Inventor:	Navdhish Gupta
Title	TABLE-BASED SCHEDULER FOR FIFOS AND THE LIKE

REQUEST FOR ISSUANCE OF CERTIFICATE OF CORRECTION PURSUANT TO 37 CFR 1.323

Certificate
APR 2 9 2008
of Correction

Certificate of Corrections Branch
Commissioner for Patents
PO Box 1450
Alexandria, VA 22313-1450

Review of the above-identified patent has revealed errors in the patent, one of which is attributable to applicants. Applicants' error is of a clerical or typographical nature (the word "selected" was inadvertently deleted from claim 13 in preparing the Response To Final Rejection) and its proposed correction does not constitute new matter or require reexamination. Applicants therefore request that a Certificate Of Correction be issued to correct these errors.

The locations of the errors in the patent are set forth below:

Errors in Patent	Proposed Correction
Col. 9, line 36: "feedback logic;"	-- feedback logic: -- (PTO error. See Response to Final Rejection, page 4, claim 11, line 13)
Col 10, line 9: "currently FIFO"	-- currently selected FIFO -- (Applicants' error. See Response To Final Rejection, page 4, claim 13, lines 4 and 8-9 and Amendment filed 9/25/06, page 4, claim 13, line 3)

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04/22/08

Documentation supporting this request and a form PTO/SB/44 showing the corrections are enclosed.

The Commissioner is hereby authorized to charge any fees associated with this communication to Deposit Account No. 501958.

Respectfully submitted,

Date: 4/22/08

By: _____

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04/22/08

UNITED STATES PATENT AND TRADEMARK OFFICE
CERTIFICATE OF CORRECTION

Page __1__ of __1__

PATENT NO. : 7,234,030 B1

APPLICATION NO.: 10/809,180

ISSUE DATE : June 19, 2007

INVENTOR(S) : Navdhish Gupta, Gary Allen

It is certified that an error appears or errors appear in the above-identified patent and that said Letters Patent is hereby corrected as shown below:

Col. 9, line 36: replace "feedback logic;" with -- feedback logic: --.

Col 10, line 9: replace "currently FIFO" with -- currently selected FIFO --.

MAILING ADDRESS OF SENDER (Please do not use customer number below):

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If you need assistance in completing the form, call 1-800-PTO-9199 and select option 2.

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IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

First Named Inventor: Navdhish Gupta

Application No.:   10/809,180

Filed: 03/25/2004

For   TABLE-BASED SCHEDULER FOR FIFOS AND THE LIKE

Examiner: Woo H Choi

Art Unit: 2189

Confirmation No.   6823

Attorney Docket No.   1054.028

RESPONSE TO FINAL REJECTION

Applicants respond to the final Office action mailed 12/19/2006 as follows.

8 11. (currently amended) A method for scheduling service for a plurality of ~~packet storage devices~~ FIFOs, the method comprising:

accessing a look-up table (LUT) stored in a ROM with an input address to retrieve a LUT output, wherein:

the input address corresponds to current status of one or more of the ~~packet storage devices~~ FIFOs; and

the LUT output identifies a next ~~packet storage device~~ FIFO to select for service and whether the ~~packet storage device~~ FIFO has data available for service;

storing and forwarding the LUT output based on a received latch enable (LE) control signal;

with a finite state machine (FSM) implemented using combinatorial feedback logic:

generating the LE control signal based on the forwarded LUT output; and

generating a read enable (RE) control signal that identifies which one or more of ~~packet storage devices~~ FIFOs are to be serviced, based on the forwarded LUT output.

12. (canceled)

9 13. (currently amended) The invention of claim 11, wherein the LE and RE control signals are generated using an FSM having an IDLE state and an EXTRACT state, wherein:

when the FSM is in the IDLE state and a currently selected ~~packet storage device~~ FIFO has no data available for service, the LE control signal is set to forward the LUT output; and

when the FSM is in the EXTRACT state and service of the currently selected ~~packet storage device~~ FIFO is completed, the LE control signal is set to forward the LUT output.

Remarks

Reconsideration of the application is requested. Applicants have amended claim 1 to incorporate the allowable subject matter of claim 2 and have amended claim 11 to include the allowable subject matter of claim 12. Claim 1 and its remaining dependent claims and claim 11 and its remaining dependent claims should now be allowable.

Applicants submit that the application is now in condition for allowance, and such action is requested.

Please call the undersigned if he can be of any assistance in completing this case.

Respectfully submitted,

Date: 3/13/07

By: _____

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IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Re: Attorney Docket No. <u>1054.028</u>

In re application of: <u>Navdhish Gupta and Gary D. Allen</u>

Serial No.:	<u>10/809,180</u>	Group Art Unit:	<u>2189</u>
Filed:	<u>03/25/04</u>	Examiner:	<u>Woo H. Choi</u>
Matter No.:	<u>L03-048</u>	Phone No.:	<u>571-272-4179</u>

For: <u>Table-Based Scheduler for FIFOs and the Like</u>

<u>AMENDMENT UNDER 37 CFR 1.111</u>

Commissioner for Patents
P.O. Box 1450
Alexandria, VA 22313-1450

Dear Sir:

This Amendment is filed in response to the non-final office action of <u>06/09/06</u>.

*   *   *   *   *

2   the packet storage devices are FIFOs;

3   the LUT is stored in a ROM; and

4   the LE and RE control signals are generated using a finite state machine (FSM) implemented

5 using combinatorial feedback logic.

1   13.   (original) The invention of claim 11, wherein the LE and RE control signals are

2 generated using an FSM having an IDLE state and an EXTRACT state, wherein:

3   when the FSM is in the IDLE state and a currently selected packet storage device has no data

4 available for service, the LE control signal is set to forward the LUT output; and

5   when the FSM is in the EXTRACT state and service of the currently selected packet storage

6 device is completed, the LE control signal is set to forward the LUT output.

1   14.   (original) The invention of claim 13, wherein:

2   when the FSM is in the IDLE state and at least one packet storage device has data available for

3 service, the FSM transitions to the EXTRACT state; and

4   when the FSM is in the EXTRACT state and no packet storage device has data available for

5 service, the FSM transitions to the IDLE state.

1   15.   (original) The invention of claim 11, wherein the current status of the one or more

2 packet storage devices comprises an indication of whether each packet storage device has data available

3 for service and an indication of which packet storage device is currently selected for service.

1   16.   (currently amended) The invention of claim 15, wherein a packet storage device has data

2 available for service when the packet storage device currently stores more than a specified <u>non-zero</u>

3 threshold number of data packets.

1   17.   (original) The invention of claim 11, wherein the LE and RE control signals are

2 generated based on service status information from the packet storage devices.

1   18.   (original) The invention of claim 17, wherein the service status information comprises

2 an indication of completion of service of the currently selected package storage device.

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when the FSM is in the EXTRACT state and service of the currently selected FIFO is completed, the FSM sets the LE control signal to enable the latch to forward the LUT output.

3. The invention of claim 2, wherein:

when the FSM is in the IDLE state and at least one FIFO has data available for service, the FSM transitions to the EXTRACT state; and

when the FSM is in the EXTRACT state and no FIFO has data available for service, the FSM transitions to the IDLE state.

4. The invention of claim 1, wherein the current status of the one or more FIFOs comprises an indication of whether each FIFO has data available for service and an indication of which FIFO is currently selected for service.

5. The invention of claim 4, wherein a FIFO has data available for service when the FIFO currently stores more than a specified threshold number of data packets.

6. The invention of claim 1, wherein the FSM is further adapted to receive service status information from the FIFOs.

7. The invention of claim 6, wherein the service status information comprises an indication of completion of service of the currently selected FIFO.

8. A method for scheduling service for a plurality of FIFOs, the method comprising:

accessing a look-up table (LUT) stored in a ROM with an input address to retrieve a LUT output, wherein:

the input address corresponds to current status of one or more of the FIFOs; and

the LUT output identifies a next FIFO to select for service and whether the FIFO has data available for service;

storing and forwarding the LUT output based on a received latch enable (LE) control signal;

with a finite state machine (FSM) implemented using combinatorial feedback logic;

generating the LE control signal based on the forwarded LUT output; and

generating a read enable (RE) control signal that identifies which one or more of FIFOs are to be serviced, based on the forwarded LUT output.

9. The invention of claim 8, wherein the LE and RE control signals are generated using an FSM having an IDLE state and an EXTRACT state, wherein: *selected*

when the FSM is in the IDLE state and a currently FIFO has no data available for service, the LE control signal is set to forward the LUT output; and

when the FSM is in the EXTRACT state and service of the currently selected FIFO is completed, the LE control signal is set to forward the LUT output.

10. The invention of claim 9, wherein:

when the FSM is in the IDLE state and at least one FIFO has data available for service, the FSM transitions to the EXTRACT state; and

when the FSM is in the EXTRACT state and no FIFO has data available for service, the FSM transitions to the IDLE state.

11. The invention of claim 8, wherein the current status of the one or more FIFOs comprises an indication of whether each FIFO has data available for service and an indication of which FIFO is currently selected for service.

12. The invention of claim 11, wherein a FIFO has data available for service when the FIFO currently stores more than a specified threshold number of data packets.

13. The invention of claim 8, wherein the LE and RE control signals are generated based on service status information from the FIFOs.

14. The invention of claim 13, wherein the service status information comprises an indication of completion of service of the currently selected FIFO.

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